



The Alaska Pregnancy Risk Assessment Monitoring System (PRAMS)



The Alaska Pregnancy Risk Assessment Monitoring System (PRAMS) Project is a survey of mothers of newborns initiated by the State of Alaska Division of Public Health, Section of Maternal, Child and Family Health in 1990. PRAMS was developed by the Centers for Disease Control and Prevention (CDC) Division of Reproductive Health to gather information on the health risk behaviors and circumstances of pregnant and postpartum women.

Currently 18 states¹ are involved in PRAMS; each state utilizes the same core questions and adds a limited number of its own state-specific questions. Topics covered include family planning; prenatal care; use of tobacco, alcohol, and drugs; participation in the Women, Infants and Children's (WIC) nutrition program and Medicaid; payment for care; family income; breast-feeding; physical abuse; and life stressors such as illness, job loss, debt, divorce; plus many other topics.

Sample Design

All PRAMS participants utilize a sampling technique called "stratified random sampling" in which all birth records are divided into categories, or "strata". Alaska stratifies by mother's race and birth weight of the infant (as reported on the birth certificate). These stratification variables are similar to other states. Alaska PRAMS uses the following four strata for sampling purposes: Alaska Native with a low birth weight (LBW) infant (i.e., <2500 grams), Alaska Native with a normal birth weight (NBW) infant (i.e., ≥2500 grams), non-Native with a LBW infant, and non-Native with a NBW infant.

A random sample is then drawn from each of these groups, and the selected mothers are mailed PRAMS surveys. Because a relatively small percentage of the total population of mothers have a LBW infant, a simple random sample may not yield sufficient numbers of responses from these women to tell us about their lifestyles and behaviors as a group. Stratified random sampling provides a means to collect more meaningful information about high-risk population groups. A weighting process is used to recombine the resulting responses to reflect the total population of Alaskan mothers of newborns in a specific time period. Survey data are confidential but not anonymous, as they can be linked back to the birth certificate.

Mode of Surveillance

PRAMS is primarily a mail survey. Phone interviews are attempted on women who do not respond by mail.

¹ Alabama, Alaska, Arkansas, Colorado, Florida, Georgia, Illinois, Louisiana, Maine, New Mexico, New York, North Carolina, Ohio, Oklahoma, South Carolina, Utah, Washington, West Virginia.

Inclusion criteria

Alaska-resident women who have delivered a live birth (whether in-state or out-of-state) make up the population base for PRAMS. In order that mothers may adequately answer questions about the postpartum period, birth records are eligible for sampling when a minimum of two months (and a maximum of six months) has passed since the date of birth. Subsequent infant deaths are included; grieving letters are mailed out in these situations. When the birth is multiple, one infant is randomly selected. Pending adoptions are included as long as the biological mother is still identified on the birth record.

Sample Size

There are approximately 10,000 - 11,000 live births per year in Alaska, or about 900 live births per month. PRAMS mails out an average of 160 questionnaires per month to mothers who have had a recent live birth. Approximately one of every six mothers of newborns is selected for PRAMS.

Limitations of PRAMS data

Self-reporting: Some bias is expected from any survey based on self-reported information. The potential for under-reporting as well as over-reporting bias must be kept in mind when interpreting results.

Population sampled: PRAMS samples mothers who have recently had a live birth. Alaska does not routinely collect data on abortions or stillbirths. As such, data do not represent women who became pregnant in the time frame specified, only those who delivered a live, viable infant.

Recall bias: Some PRAMS questions ask the respondent to remember events or behaviors up to 12 months before they got pregnant. On average, the infant is four months old at the time the mother responds to the questionnaire. Mothers who respond to the survey when their infant is younger may recall events more accurately than mothers who respond when their infant is older.

Response rates: Survey response rates may also affect the potential for bias in the data. However, Alaska's survey response rates are favorable. The overall response rate is 75%.

Reliability: The reliability of a prevalence estimate depends on the actual, unweighted number of respondents in a category (not a weighted number). Interpreting and reporting weighted numbers that are based on a small, unweighted number of respondents can be misleading. The degree of precision increases if the sample size is larger and decreases if the sample size is smaller.

Suggested citation

Alaska Division of Public Health
Pregnancy Risk Assessment Monitoring System (PRAMS), year (s)
Weighted (or unweighted) Data